Appendix E

Alternatives No Longer Considered

E. ALTERNATIVES NO LONGER CONSIDERED

1 INTRODUCTION

Nearly three decades of planning activities have focused on different approaches and alternatives to address the need for an improved multimodal facility serving travel between Whidbey Island and the Mukilteo area. The Mukilteo/Clinton ferry route is part of State Route (SR) 525, the major transportation corridor connecting Whidbey Island to the Seattle-Everett metropolitan area. It is Washington State Ferries' (WSF) second busiest route for vehicle traffic and has the third largest annual ridership in the WSF system. The existing Mukilteo ferry terminal is aging and needs major repairs to improve safety, reliability, and multimodal connections.

Alternatives for improving the terminal have been discussed in various efforts since the 1970s. The City of Mukilteo completed a *Mukilteo Multimodal Terminal and Access Study* in 1995. WSF began detailed master plan efforts with multiple concepts in the *2004 Mukilteo Multimodal Terminal Master Plan Design Report* (WSF 2004a).This was followed by additional planning, design, and environmental studies of a variety of concepts.

The Washington State Department of Transportation (WSDOT) began studying the Mukilteo Multimodal Project in 2004 to improve ferry operations, safety, transit connections, and access, and WSDOT and the Federal Transit Administration (FTA) initiated the environmental process in 2006. In 2007, the Washington State Legislature put the project on hold due to funding and constructability issues associated with the previously identified alternatives. WSDOT and FTA re-initiated this project's environmental process in February 2010 with new project concepts for review and evaluation.

WSDOT and FTA are preparing this Environmental Impact Statement (EIS) for the project in compliance with the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA). As a source of funds for this project, FTA is the federal lead agency for the NEPA EIS process. WSDOT is the state lead agency for SEPA.

WSF has been developing alternatives for the Mukilteo Multimodal Project since the beginning of the NEPA/SEPA process in 2004. A summary of this process through 2009 can be found in *Mukilteo Multimodal Ferry Terminal Project Alternatives History Through 2009* (WSF 2010).

2 ALTERNATIVES CONSIDERED IN 2004 EA AND 2006 EIS PROCESSES

During the initial 2004 Environmental Assessment (EA) and 2006 EIS processes, WSDOT and FTA evaluated two Build alternatives and identified insurmountable challenges associated with archaeological resources, the amount of overwater construction, difficult geotechnical conditions, and infeasible costs. The project was placed on hold in 2007 while additional planning and environmental investigations continued to address these areas of concern and to allow for the finalization of the WSDOT Ferries Division Long-Range Plan.

2.1 Compact Terminal Alternative

The Compact Terminal Alternative proposed to relocate the ferry terminal and develop a multimodal transit center on 6 to 7 acres of the Mukilteo Tank Farm, located east of the existing ferry terminal. The transit center would have accommodated about seven articulated buses and included an area for passenger pick-up and drop-off. With a capacity for two boat loads of vehicles, the ferry holding area would have occupied about 2.6 acres and would have been over the water. A new extension of First Street to access the terminal would have separated ferry traffic from local traffic on Front Street. A pedestrian bridge would have connected the ferry terminal to the proposed Mukilteo Sounder Station, commuter parking, and the waterfront promenade. A joint-use parking structure would have provide 275 to 400 parking stalls.

2.2 Upland Terminal Alternative

The Upland Terminal Alternative would have occupied approximately 12 to 13 acres of the Mukilteo Tank Farm. The main holding area would have been on land and had a holding capacity for two boat loads of vehicles. The over-water trestle and transfer span would have occupied about 0.7 acre. Access to the proposed transit center and parking structure would have been on Front Street. A pedestrian bridge would have connected the ferry terminal to the proposed Sound Transit Mukilteo Commuter Rail Station (Mukilteo Sounder Station), commuter parking, and the waterfront promenade. The transit center would have accommodated about seven articulated buses and included an area for passenger pick-up and drop-off. A joint-use parking structure would have provided up to 480 parking stalls.

3 CONCEPTS CONSIDERED BUT NOT STUDIED FURTHER

Before the screening process began, WSF evaluated the area in between Mukilteo and Edmonds as well as between Mukilteo and Everett as potential locations for replacing the Mukilteo terminal, but determined these locations to be unsuitable for a multimodal ferry terminal because of potential environmental impacts and severe community disruption. The shoreline of Puget Sound and Possession Sound in these areas is characterized by steep forested bluffs and unstable soils, with the busy BNSF rail line at the base of the bluffs. The ravines that punctuate these bluffs are generally undeveloped forested stream corridors. Land use is almost exclusively residential with no state highways nearby. Constructing a ferry terminal in these areas would result in adverse impacts to protected fish and wildlife and would likely impact forested wetlands. In addition, these locations would require extensive construction or reconstruction of access roads to connect the terminal to the nearest state highway, which would be very disruptive to the adjacent communities.

WSF also reconsidered replacing the existing ferry route between Mukilteo and Clinton with a floating or elevated bridge across Possession Sound. The shore-to-shore span of the bridge would be approximately 2.76 miles, not including the support structures. This span would be approximately 70 percent longer than the longest span currently in existence. This concept is still not feasible because of potential environmental impacts and the high cost for such a structure.

In Everett, WSF considered several locations for relocating the ferry terminal within the Port of Everett. Of these, WSF determined that the two existing Pacific Terminals, Pier 1 and Pier 3, were not feasible. Placing a ferry terminal at either of these locations would divide operations at the Port of Everett in half, greatly reducing the usability of the southern half of the Port. With both locations, ferry schedule reliability would be adversely affected by frequent conflicts between ferries and vessels using both the Port of Everett and Naval Station Everett.

4 SCREENING PROCESS

WSF and FTA developed criteria for the Level 1 and 2 screening processes based on the project Purpose and Need Statement (see *Chapter 1. Purpose and Need).* WSF and FTA screened and evaluated the proposed concepts based on how well each concept met the purpose and need for the project. WSF and FTA used the results of the two-level screening process, along with comments received through the scoping process, to choose which concepts will be studied in the EIS.

4.1 Level 1 Screening

The project team evaluated ten concepts in the Level 1 screening process. These concepts are described in *Chapter 2. Alternatives.* The concepts are listed below, grouped geographically.

Existing Mukilteo Terminal

- No Build
- Existing Site Improvements

Elliot Point

- Elliot Point – Option 1
- Elliot Point – Option 2
- Elliot Point – Option 3
- Mount Baker Terminal

Edmonds

- Edmonds - Existing Terminal
- Edmonds – Existing Site Improvements
- Point Edwards

Everett

- Port of Everett South Terminal

For the Level 1 screening, each concept was screened against three primary criteria. Each of these primary criteria included multiple questions. For the criteria that evaluated safety and security or transportation, each of the concepts was rated in terms of how well it met each of the criteria. For the criteria that evaluated environmental impacts, each concept was rated by its likelihood to avoid adverse impacts. The criteria used in the screening were as follows:

- Does the concept improve safety and security at the terminal facility compared to existing conditions at the Mukilteo terminal?

- Does the concept improve transportation operations compared to existing conditions at the Mukilteo terminal?
- How well does the concept avoid environmental effects?

Table 1 summarizes the results of the Level 1 screening for each concept. The details of the screening results for the Level 1 analysis are documented in *Mukilteo Multimodal Project Level 1 Screening Result*. None of these concepts were eliminated in the Level 1 analysis; all were carried forward into the Level 2 analysis.

Table 1. Summary of Level 1 Screening Results

Level 1 Screening Results Summary	No Build	Existing Site Improvements	Elliot Point – Option 1	Elliot Point – Option 2	Elliot Point – Option 3	Mount Baker Terminal	Edmonds – Existing Terminal	Edmonds – Existing Site	Edmonds – Point Edwards	Port of Everett South Terminal
(1) Does the concept improve safety and security at the terminal facility compared to existing conditions at the Mukilteo terminal?										
1(A) Does the concept improve safety for vehicles, bicycles, and pedestrians by reducing conflicts?	⬢	◆	◆	▲	◆	▲	⬢	◆	▲	▲
1(B) Does the concept address the structural deficiencies of the existing terminal?	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
1(C) Does the concept allow for the facility to be secured as required by Homeland Security?	⬢	⬢	▲	▲	▲	▲	⬢	⬢	▲	▲
(2) Does the concept improve transportation operations compared to existing conditions at the Mukilteo terminal?										
2(A) Would the concept provide a terminal with improved multimodal connections?	⬢	◆	◆	▲	◆	⬢	◆	◆	⬢	⬢
2(B) Would the concept provide adequate facilities for future transit service?	⬢	▲	▲	▲	▲	▲	⬢	▲	▲	▲
2(C) Is there enough room to provide holding facilities that can handle at least 1.5 times the capacity of the ferry (approximately 215 vehicles)?	▲	▲	▲	▲	▲	▲	⬢	▲	▲	▲
2(D) Would the concept provide improved facilities for loading and unloading the ferry reliably to maintain schedules?	⬢	▲	▲	▲	▲	▲	⬢	⬢	▲	▲
(3) How well does the concept avoid environmental effects?										
3(A) Ecosystem resources (aquatic habitat, wetlands)?	◆	◆	▲	▲	▲	◆	▲	⬢	⬢	◆
3(B) Historic, cultural, and parkland resources?	⬢	⬢	⬢	⬢	⬢	⬢	◆	⬢	◆	▲
3(C) Proximity effects (noise and visual)?	◆	◆	⬢	⬢	⬢	⬢	◆	⬢	◆	▲

▲ Meets criterion or likely to avoid adverse effects
◆ Partially meets criterion or avoidance uncertain or mixed
⬢ Does not meet criterion or likely to not avoid adverse effects

4.2 Level 2 Screening

Similar to the Level 1 screening, the project team used the three primary criteria for the Level 2 screening analysis to evaluate the ten concepts. For the Level 2 screening they evaluated these criteria in more detail than the Level 1 screening. Table 2 summarizes the results of the Level 2 screening for each concept. The detailed results of the Level 2 screening are documented in *Mukilteo Multimodal Project Level 2 Screening Results*.

Table 2. Summary of Level 2 Screening Results

Level 2 Screening Results Summary	No Build	Existing Site Improvements	Elliot Point – Option 1	Elliot Point – Option 2	Elliot Point – Option 3	Mount Baker Terminal	Edmonds – Existing Terminal	Edmonds – Existing Site Improvements	Edmonds – Point Edwards	Port of Everett South Terminal
(1) Does the concept improve safety and security at the terminal facility compared to existing conditions at the Mukilteo terminal?										
1(A) Does the concept reduce conflicts between local and ferry vehicle traffic compared to existing conditions?	●	●	▲	▲	▲	▲	●	●	▲	▲
1(B) Does the concept reduce conflicts between vehicles and pedestrians/bicyclists during ferry loading and unloading?	●	◆	◆	▲	◆	▲	●	▲	▲	▲
(2) Does The Concept Improve Transportation Operations Compared To Existing Conditions At The Mukilteo Terminal?										
2(A) Does the concept improve the reliability of ferry loading/unloading operations compared to the existing Mukilteo terminal?	●	◆	▲	▲	▲	▲	●	●	▲	▲
2(B) Would the location of the terminal avoid ferry conflicts with maritime traffic that would adversely affect ferry schedule reliability?	▲	▲	▲	▲	▲	▲	◆	◆	◆	●
2(C) Does the concept provide effective connections between modes (ferry, bus, and rail)?	◆	◆	◆	▲	▲	●	◆	◆	●	●
2(D) Does the concept improve or maintain the connection between Whidbey Island and Seattle-Everett metropolitan area for the majority of users?	See below.									
2(D1) Does the concept improve or maintain peak period trip time? (estimated existing travel time in minutes)	See below.									

Table 2. Summary of Level 2 Screening Results

Level 2 Screening Results Summary	No Build	Existing Site Improvements	Elliot Point – Option 1	Elliot Point – Option 2	Elliot Point – Option 3	Mount Baker Terminal	Edmonds – Existing Terminal	Edmonds – Existing Site Improvements	Edmonds – Point Edwards	Port of Everett South Terminal
Clinton to Seattle (downtown)	▲	▲	▲	▲	▲	▲	⬢	⬢	⬢	⬢
Clinton to Seattle (University of Washington)	▲	▲	▲	▲	▲	▲	⬢	⬢	⬢	⬢
2(D2) Does the concept improve or maintain service frequency on the ferry route?	▲	▲	▲	▲	▲	▲	⬢	⬢	⬢	⬢
(3) How Well Does The Concept Avoid Environmental Effects?										
3(A) What is the potential for avoiding adverse effects on stream habitat and species?	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
3(B) What is the potential for avoiding adverse effects on marine and near-shore habitat and species?	◆	◆	▲	▲	▲	▲	▲	⬢	⬢	◆
3(C) What is the potential for avoiding adverse effects on wetland habitat and species?	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
3(D) What is the potential for avoiding adverse effects on upland habitat valuable to migratory birds?	▲	▲	◆	◆	◆	◆	▲	▲	⬢	▲
3(E) What is the potential for avoiding adverse effects on historic properties?	⬢	⬢	⬢	⬢	⬢	⬢	▲	▲	◆	▲
3(F) What is the potential for avoiding the use of parklands (publicly owned parks, recreational areas, wildlife and waterfowl refuges)?	▲	◆	◆	▲	▲	◆	▲	⬢	◆	▲
3(G) What is the potential for avoiding conflicts with land use plans and zoning?	⬢	⬢	▲	▲	▲	▲	⬢	⬢	▲	▲
3(H) What is the potential for avoiding conflicts with shoreline plans?	▲	▲	▲	▲	▲	▲	▲	⬢	▲	▲
3(I) What is the potential for avoiding adverse effects on neighborhoods from ferry traffic?	◆	◆	▲	▲	▲	▲	⬢	⬢	⬢	⬢

Table 2. Summary of Level 2 Screening Results

Level 2 Screening Results Summary	No Build	Existing Site Improvements	Elliot Point – Option 1	Elliot Point – Option 2	Elliot Point – Option 3	Mount Baker Terminal	Edmonds – Existing Terminal	Edmonds – Existing Site Improvements	Edmonds – Point Edwards	Port of Everett South Terminal
3(J) What is the potential for avoiding adverse effects on navigable waterways from the placement of new structures?	▲	▲	▲	▲	▲	▲	▲	▲	▲	⬣

▲ Meets criterion or likely to avoid adverse effects

◆ Partially meets criterion or avoidance uncertain or mixed

⬣ Does not meet criterion or likely to not avoid adverse effects

5 CONCEPTS NO LONGER CONSIDERED

WSF and FTA used the screening processes described above along with feedback received during the scoping process to determine which concepts should be studied further in the Draft EIS. WSF and FTA decided to not study the following concepts further for the reasons described below.

5.1 Edmonds

None of the concepts located in Edmonds would meet the purpose and need of the project. Moving the terminal from Mukilteo to Edmonds would substantially degrade the transportation service of the ferry route for passengers. The frequency of the route would decrease by 54 percent and travel times between Clinton and the Seattle area (which represents the majority of trips on the route) would be 35 to 57 percent longer, depending on the mode used. Vehicles would continue to be queued in adjacent neighborhoods during peak periods. Public and agency opposition to all of the Edmonds concepts was very strong. Additional issues related to the individual concepts are discussed below.

5.1.1 Edmonds – Existing Concept

The Edmonds – Existing Concept currently lacks adequate holding facilities for the current Edmonds/ Kingston route. Separating the holding for the two routes would be difficult and adding an additional route would increase congestion. Train volumes on the BNSF railway mainline are expected to increase from the current 35 trains per day to as many as 70 trains per day in 2020 and 104 in 2030 (WSDOT 2004). Conflicts between rail traffic and ferry traffic would worsen if a second route were added.

5.1.2 Edmonds – Existing Site Improvements

The Edmonds – Existing Site Improvements Concept would expand the holding facilities to accommodate two routes; trains would continue to negatively affect the reliability of the ferry route. The expansion of the holding lanes over water would have both a negative impact on habitat and require the use of upland and underwater areas in Brackett's Landing North, a popular park for diving. Expansion of the terminal into Conservancy Saltwater Environment area would not be consistent with shoreline plans.

5.1.3 Edmonds – Point Edwards Concept

The Edmonds – Point Edwards Concept, would have poor multimodal connectivity. Although a multimodal facility that addresses future growth could be constructed at this location, it would be separated from the ferry vessels by a long 1,300-foot trestle (WSDOT 2004). Sound Transit had considered moving Mukilteo Station to Point Edwards, but when a ferry terminal at that location was abandoned by WSF, Sound Transit focused on improvements to the existing commuter rail station that is more than 0.75 miles from the ferry. While the concept would remove ferry traffic from downtown Edmonds, it likely would adversely affect traffic congestion in neighborhoods along SR 104 south of Pine Street. A portion of Marina Beach Park would be used by this concept, though removal of the existing terminal in Edmonds

would allow the Brackett's Landing parks to be improved. This concept would also have a larger overwater footprint than most of the other concepts and would have a negative impact on habitat.

5.2 Everett

5.2.1 Port of Everett South Terminal Concept

This concept would not meet the purpose and need of the project. Moving the terminal from Mukilteo to Everett would substantially degrade the transportation service of the ferry route for passengers. The frequency of the route would decrease by 43 percent and travel times between Clinton and the Seattle area (which represents the majority of trips on the route) would be 32 and 46 percent longer, depending on the mode used. In addition, the South Terminal location would degrade multimodal connections compared to the existing terminal in Mukilteo. The commuter rail station would be 1.75 miles from the terminal. Also, Community Transit has indicated that they would not serve a ferry terminal at this location, so ferry riders would have fewer options for direct bus service from the terminal. This concept would also introduce ferry traffic and related congestion into adjacent neighborhoods. The Port of Everett South Terminal Concept would displace deepwater port facilities and functions at the Port of Everett that would be very difficult to relocate.

Public and agency opposition to the Port of Everett South Terminal Concept was very strong.

5.3 Mukilteo

5.3.1 Elliot Point – Option 3

While this concept meets most aspects of the project purpose and need, the Elliot Point – Option 2 Concept would provide better transportation operations at the same location with the same or fewer negative impacts. These two Elliot Point options occupy the same location on the Mukilteo waterfront but differ in the arrangement of project elements. Of all the concepts evaluated, they offer the closest multimodal connections by placing all modes within one quarter-mile of each other. Option 2 has closer bus/ferry and rail/ ferry connections than Option 3, while Option 3 has a closer rail/bus connection. For all of these connections, the distances are within one-tenth mile of each other.

While Option 2 and Option 3 are very similar to each other, Option 3 has characteristics that make it less desirable. With Option 3, passengers going between the ferry and the commuter rail station would cross offloading ferry traffic at a crosswalk. Option 2 would avoid this potential conflict, making it more consistent with the project purpose and need. Of all the concepts, Option 3 is closest to the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service Mukilteo Research Station where they have collected water from Possession Sound for use in scientific studies for several decades. This water source could be adversely affected by the proximity of the ferry terminal. As with the other Mukilteo concepts, there are historic properties at the site. Because Option 2 and Option 3 are otherwise

very similar, WSF and FTA find it reasonable to continue studying Option 2 and to drop Option 3.

5.3.2 Mount Baker Terminal

This concept addresses most of the issues related to improving local traffic, safety, and security at the terminal facility. It also provides capacity for growth in transit service at the terminal. However, it degrades the connections between transportation modes by spreading them farther apart than any of the other Mukilteo concepts. Joint use of the existing Mount Baker Terminal by the Port of Everett and WSF is not possible, so the Port of Everett would need to build a new pier in the vicinity. The potential for adverse impacts to historic properties from this concept is very similar to Elliot Point – Option 1. The Mount Baker Terminal Concept has no support from other jurisdictions and agencies.

Because the Mount Baker Terminal Concept provides fewer benefits than the Elliot Point – Option 1 Concept and has similar or worse impacts, WSF and FTA find it reasonable to exclude the Mount Baker Terminal concept from further analysis.

6 REFERENCES

WSF (Washington State Ferries). 2010. Mukilteo Multimodal Project Concept Descriptions. September, 2010. Seattle, Washington.

WSF. 2004a.WSDOT (Washington State Department of Transportation). 2004.